

## **AMENDMENTS**

### **Amended Claims:**

1. (currently amended): A method in a data processing system having a plurality of elements, each element having corresponding code, the method comprising the steps of:

displaying a graphical representation of the corresponding code of each of the

plurality of elements including a first element and a second element;

receiving a request to form a link;

receiving an indication of a first of the plurality of elements;

receiving an indication of a second of the plurality of elements; and

in response to receiving the request, the indication of the first element, and the

indication of the second element,

adding new code to the first element to reflect the link to the

second element- and

modifying the graphical representation of the code associated with

the first element to reflect the link to the second element.

2. (cancelled)

3. (cancelled)

4. (original): The method of claim 1, wherein the step of adding new code to the first element comprises the steps of:

determining whether linking the first element to the second element would violate

a predefined rule; and

when it is determined that linking the first element to the second element would

not violate a predefined rule,  
adding the new code to the first element to form the link to the second  
element.

5. (original): The method of claim 4, wherein the step of determining whether linking the first element to the second element would violate a predefined rule comprises the steps of:

determining whether the first element is a class and whether the second element is another class; and  
when it is determined that the first element is the class and that the second element is the other class,  
identifying the link from the first element to the second element as an inheritance link.

6. (original): The method of claim 5, further comprising the step of identifying a link error when it is determined that the first element is the class and that the second element is not the other class.

7. (original): The method of claim 4, wherein the step of determining whether linking the first element to the second element would violate a predefined rule comprises the steps of:

determining whether the first element is a class and whether the second element is an interface; and  
when it is determined that the first element is the class and that the second element is the interface,

identifying the link from the first element to the second element as an  
implementation link.

8. (original): The method of claim 7, further comprising the step of identifying a link error when it is determined that the first element is the class and that the second element is not the interface.

9. (original): The method of claim 4, wherein the step of determining whether linking the first element to the second element would violate a predefined rule comprises the steps of:

determining whether the first element is an interface and the second element is  
another interface; and

when it is determined that the first element is the interface and the second element  
is the other interface,

identifying the link from the first element to the second element as an  
inheritance link.

10. (original): The method of claim 9, further comprising the step of identifying a link error when it is determined that the first element is the interface and the second element is not the other interface.

11. (cancelled)

12. (cancelled)

13. (cancelled)

14. (cancelled)

15. (cancelled)

16. (cancelled)

17. (cancelled)

18. (cancelled)

19. (cancelled)

20. (currently amended): A method in a data processing system having a plurality of elements and having a link between two of the plurality of elements, wherein each element has corresponding code and the linked elements include a source and a destination, the method comprising the steps of:

displaying a graphical representation of the corresponding code of each of the

plurality of elements including the source and the destination;

receiving an identification of the link;

receiving a selection of one of the linked elements;

receiving an identification of another of the plurality of elements that is different

than the linked elements, wherein a graphical representation of the

corresponding code of the other element is displayed;

determining whether the selected element is the destination; and

when it is determined that the selected element is the destination,

modifying the corresponding code of the other element to reflect a new

link between the other element and the destination element; and

modifying the graphical representation of the corresponding code of the other element to reflect the new link between the other element and the destination element.

21. (original): The method of claim 20, wherein the modifying step further includes the step of modifying the corresponding code of the source to reflect the removal of the link between the source and the destination.

22. (cancelled)

23. (currently amended): The method of claim ~~22~~ 184, further comprising the step of modifying the graphical representation of the corresponding code of the source to reflect the removal of the link between the source and the destination.

24. (cancelled)

25. (cancelled)

26. (original): The method of claim 20, wherein the modifying step includes the steps of:

determining whether linking the other element to the destination would violate a predefined rule; and

when it is determined that linking the other element to the destination would not violate a predefined rule,

modifying the corresponding code of the source to reflect the removal of the link between the source and the destination; and

adding new code to the corresponding code of the other element to reflect

the new link between the other element and the destination  
element.

27. (original): The method of claim 26, wherein the step of determining whether linking the other element to the destination would violate a predefined rule, comprises the steps of:

determining whether the other element is a class and whether the destination is  
another class; and  
when it is determined that the other element is the class and that the destination is  
the other class,  
identifying the new link between the other element and the destination as  
an inheritance link.

28. (original): The method of claim 26, wherein the step of determining whether linking the other element to the destination would violate a predefined rule, comprises the steps of:

determining whether the other element is a class and whether the destination is an  
interface; and  
when it is determined that the other element is the class and that the destination is  
the interface,  
identifying the new link between the other element and the destination as  
an implementation link.

29. (original): The method of claim 28, further comprising the step of identifying a link error when it is determined that the other element is the class and that the destination is not the interface.

30. (original): The method of claim 26, wherein the step of determining whether linking the other element to the destination would violate a predefined rule, comprises the steps of:

determining whether the other element is an interface and the destination is another interface; and

when it is determined that the other element is the interface and the destination is the other interface,

identifying the new link between the other element and the destination as an inheritance link.

31. (original): The method of claim 30, further comprising the step of identifying a link error when it is determined that the other element is not the interface.

32. (original): The method of claim 30, further comprising the step of identifying a link error when it is determined that the destination is not the other interface.

33. (cancelled)

34. (cancelled)

35. (cancelled)

36. (cancelled)

37. (cancelled)

38. (cancelled)

39. (cancelled)

40. (cancelled)

41. (cancelled)

42. (currently amended): A method in a data processing system having a plurality of elements and having a link between two of the plurality of elements, wherein each element has corresponding code and the linked elements include a source and a destination, the method comprising the steps of:

displaying a graphical representation of the corresponding code of each of the plurality of elements including the source and the destination;

receiving an identification of the link;

receiving a selection of one of the linked elements;

receiving an identification of another of the plurality of elements that is different

than the linked elements, wherein a graphical representation of the

corresponding code of the other element is displayed;

determining whether the selected element is the source; and

when it is determined that the selected element is the source,

modifying the corresponding code of the source to reflect a new link

between the source and the other element; and

modifying the graphical representation of the corresponding code of the



source element to reflect the new link between the source element  
and the other element.

43. (cancelled)

44. (currently amended): The method of claim ~~43~~ 184, further comprising the step of modifying the graphical representation of the ~~corresponding code of~~ corresponding to the source to reflect the removal of the link to the destination ~~when it is determined that the selected element is the source.~~

45. (original): The method of claim 42, further comprising the steps of:

when it is determined that the selected element is the source,

determining whether linking the source to the other element would violate  
a predefined rule; and

when it is determined that linking the source to the other element would  
not violate a predefined rule,

modifying the corresponding code of the source to reflect the

removal of the link between the source and the destination;

and

adding new code to the corresponding code of the source to reflect  
the new link to the other element.

46. (cancelled)

47. (original): The method of claim 45, wherein the step of determining whether linking the source to the other element would violate a predefined rule, comprises the steps of:

determining whether the source is a class and whether the other element is another class; and  
when it is determined that the source is the class and that the other element is the other class,  
identifying the new link between the source and the other element as an inheritance link.

48. (original): The method of claim 45, wherein the step of determining whether linking the source to the other element would violate a predefined rule, comprises the steps of:

determining whether the source is a class and whether the other element is an interface; and  
when it is determined that the source is the class and that the other element is the interface,  
identifying the new link from the source to the other element as an implementation link.

49. (original): The method of claim 48, further comprising the step of identifying a link error when it is determined that the other element is not the interface.

50. (original): The method of claim 45, wherein the step of determining whether linking the source to the other element would violate a predefined rule, comprises the steps of:

determining whether the source is an interface and the other element is another interface; and

when it is determined that the source is the interface and the other element is the other interface,

identifying the new link between the source and the other element as an inheritance link.

51. (original): The method of claim 50, further comprising the step of identifying a link error when it is determined that the source is not the interface.

52. (original): The method of claim 50, further comprising the step of identifying a link error when it is determined that the other element is not the other interface.

53. (cancelled)

54. (cancelled)

55. (cancelled)

56. (cancelled)

57. (cancelled)

58. (cancelled)

59. (cancelled)

60. (cancelled)

61. (cancelled)

62. (cancelled)

63. (cancelled)

64. (cancelled)

65. (cancelled)

66. (cancelled)

67. (cancelled)

68. (currently amended): A method in a data processing system having a plurality of elements, the method comprising the steps of:

displaying a graphical representation of the corresponding code of each of the plurality of elements including a first and a second element;

receiving an identification of a first of the plurality of elements;

receiving an identification of a second of the plurality of elements;

receiving an indication that the first element is to be included in the second element;

determining whether the inclusion of the first element ~~is a class and whether the in~~ the second element would violate a predefined rule ~~is another class;~~ and

when it is determined that the inclusion of the first element ~~is the class and that in~~

the second element ~~is the other class~~ would not violate a predefined rule,  
transferring the code corresponding to the first element into the second  
element and  
modifying the graphical representation of the code of the second element  
to reflect the transfer of the code corresponding to the first element  
into the second element.

69. (cancelled)

70. (cancelled)

71. (currently amended): The method of claim 68, wherein the step of transferring  
code comprises the steps of:

removing the code corresponding to the first element from a file;  
placing the code corresponding to the first element within the code corresponding  
to the second element; and  
deleting the file corresponding to the first element.

72. (currently amended): The method of claim 68, wherein the method further  
comprises the steps of:

when it is determined that the first element is ~~the~~ a class and that the second  
element is not ~~the~~ another class,  
determining whether the second element is a package; and  
when it is determined that the second element is a package,  
moving a file that includes code corresponding to the first element  
to a directory associated with the second element.

73. (cancelled)

74. (cancelled)

75. (currently amended): A method in a data processing system having a plurality of elements, each element having corresponding code, wherein code corresponding to a first of the plurality of elements is nested in the code corresponding to a second of the plurality of elements, the method comprising the steps of:

displaying a graphical representation of the corresponding code of each of the plurality of elements including the first element and the second element;

receiving an indication that the first element is to be removed from the second element;

determining whether the removal of the first element is a class and whether from the second element is another class would not violate a predefined rule;  
and

when it is determined that the removal of the first element is the class and that from the second element would not violate a predefined rule is the other class,

removing the code corresponding to the first element from the second element- and

modifying a graphical representation of the code corresponding to the second element to reflect the removal of the first element from the second element.

76. (original): The method of claim 75, further comprising the step of placing the code corresponding to the first element into a file.

77. (cancelled)

78. (cancelled)

79. (currently amended): The method of claim 75, further comprising the steps of:  
when it is determined that the first element is ~~the~~ a class and that the second element is not ~~the~~ another class,

determining whether the second element is a package; and

when it is determined that the second element is ~~the~~ a package,

removing a first file that includes code corresponding to the first element from a directory associated with the second element ~~to~~ and  
placing the first file in another directory.

80. (cancelled)

81. (cancelled)

82. (cancelled)

83. (currently amended): A computer-readable medium containing instructions for controlling a data processing system to perform a method, the data processing system having a plurality of elements, each element having corresponding code, the method comprising the steps of:

displaying a graphical representation of the corresponding code of each of the

plurality of elements including the first element and the second element;

receiving a request to form a link;

receiving an indication of a first of the plurality of elements;

receiving an indication of a second of the plurality of elements; and

in response to receiving the request, the indication of the first element, and the

indication of the second element,

adding new code to the first element to reflect the link to the second

element; and

modifying the graphical representation of the code associated with the first

element to reflect the link to the second element.

84. (cancelled)

85. (cancelled)

86. (original): The computer-readable medium of claim 83, wherein the step of adding new code to the first element comprises the steps of:

determining whether linking the first element to the second element would violate

a predefined rule; and

when it is determined that linking the first element to the second element would

not violate a predefined rule,

adding the new code to the first element to form the link to the second

element.



87. (original): The computer-readable medium of claim 86, wherein the step of determining whether linking the first element to the second element would violate a predefined rule comprises the steps of:

determining whether the first element is a class and whether the second element is another class; and  
when it is determined that the first element is the class and that the second element is the other class,  
identifying the link from the first element to the second element as an inheritance link.

88. (original): The computer-readable medium of claim 87, wherein the method further comprises the step of identifying a link error when it is determined that the first element is the class and that the second element is not the other class.

89. (original): The computer-readable medium of claim 86, wherein the step of determining whether linking the first element to the second element would violate a predefined rule comprises the steps of:

determining whether the first element is a class and whether the second element is an interface; and  
when it is determined that the first element is the class and that the second element is the interface,  
identifying the link from the first element to the second element as an implementation link.

90. (original): The computer-readable medium of claim 89, wherein the method further comprises the step of identifying a link error when it is determined that the first element is the class and that the second element is not the interface.

91. (original): The computer-readable medium of claim 86, wherein the step of determining whether linking the first element to the second element would violate a predefined rule comprises the steps of:

determining whether the first element is an interface and the second element is another interface; and

when it is determined that the first element is the interface and the second element is the other interface,

identifying the link from the first element to the second element as an inheritance link.

92. (original): The computer-readable medium of claim 91, wherein the method further comprises the step of identifying a link error when it is determined that the first element is the interface and the second element is not the other interface.

93. (cancelled)

94. (cancelled)

95. (cancelled)

96. (cancelled)

97. (cancelled)

98. (cancelled)

99. (cancelled)

100. (cancelled)

101. (cancelled)

102. (currently amended): A computer-readable medium containing instructions for controlling a data processing system to perform a method, the data processing system having a plurality of elements and having a link between two of the plurality of elements, wherein each element has corresponding code and the linked elements include a source and a destination, the method comprising the steps of:

displaying a graphical representation of the corresponding code of each of the plurality of elements including the source and the destination;

receiving an identification of the link;

receiving a selection of one of the linked elements;

receiving an identification of another of the plurality of elements that is different than the linked elements, wherein a graphical representation of the corresponding code of the other element is displayed;

determining whether the selected element is the destination; and

when it is determined that the selected element is the destination,

modifying the corresponding code of the other element to reflect a new link between the other element and the destination element; and

modifying the graphical representation of the corresponding code of the

other element to reflect the new link between the other element and the destination element.

103. (original): The computer-readable medium of claim 102, wherein the modifying step further includes the step of modifying the corresponding code of the source to reflect the removal of the link between the source and the destination.

104. (cancelled)

105. (currently amended): The computer-readable medium of claim ~~104~~ 102, wherein the method further comprises the step of modifying the graphical representation of the corresponding code of the source to reflect the removal of the link between the source and the destination.

106. (cancelled)

107. (cancelled)

108. (original): The computer-readable medium of claim 102, wherein the modifying step includes the steps of:

determining whether linking the other element to the destination would violate a predefined rule; and

when it is determined that linking the other element to the destination would not violate a predefined rule,

modifying the corresponding code of the source to reflect the removal of the link between the source and the destination; and

adding new code to the corresponding code of the other element to reflect

the new link between the other element and the destination  
element.

109. (original): The computer-readable medium of claim 108, wherein the step of determining whether linking the other element to the destination would violate a predefined rule, comprises the steps of:

determining whether the other element is a class and whether the destination is  
another class; and

when it is determined that the other element is the class and that the destination is  
the other class,

identifying the new link between the other element and the destination as  
an inheritance link.

110. (original): The computer-readable medium of claim 108, wherein the step of determining whether linking the other element to the destination would violate a predefined rule, comprises the steps of:

determining whether the other element is a class and whether the destination is an  
interface; and

when it is determined that the other element is the class and that the destination is  
the interface,

identifying the new link between the other element and the destination as  
an implementation link.

111. (original): The computer-readable medium of claim 110, wherein the method further comprises the step of identifying a link error when it is determined that the other element is the class and that the destination is not the interface.

112. (original): The computer-readable medium of claim 108, wherein the step of determining whether linking the other element to the destination would violate a predefined rule, comprises the steps of:

determining whether the other element is an interface and the destination is another interface; and

when it is determined that the other element is the interface and the destination is the other interface,

identifying the new link between the other element and the destination as an inheritance link.

113. (original): The computer-readable medium of claim 112, wherein the method further comprises the step of identifying a link error when it is determined that the other element is not the interface.

114. (original): The computer-readable medium of claim 112, wherein the method further comprises the step of identifying a link error when it is determined that the destination is not the other interface.

115. (cancelled)

116. (cancelled)

117. (cancelled)

118. (cancelled)

119. (cancelled)

120. (cancelled)

121. (cancelled)

122. (cancelled)

123. (cancelled)

124. (currently amended): A computer-readable medium containing instructions for controlling a data processing system to perform a method, the data processing system having a plurality of elements and having a link between two of the plurality of elements, wherein each element has corresponding code and the linked elements include a source and a destination, the method comprising the steps of:

displaying a graphical representation of the corresponding code of each of the

plurality of elements including the source and the destination;

receiving an identification of the link;

receiving a selection of one of the linked elements;

receiving an identification of another of the plurality of elements that is different than the linked elements, wherein a graphical representation of the

corresponding code of the other element is displayed;

determining whether the selected element is the source; and

when it is determined that the selected element is the source,

modifying the corresponding code of the source to reflect a new link

between the source and the other element; and

modifying the graphical representation of the corresponding code of the  
source to reflect the new link between the source and the other  
element.

125. (cancelled)

126. (currently amended): The computer-readable medium of claim ~~125~~ 185,  
wherein the method further comprises the step of modifying the graphical representation of  
the ~~corresponding~~ code of corresponding to the source to reflect the removal of the link to  
the destination ~~when it is determined that the selected element is the source.~~

127. (original): The computer-readable medium of claim 124, wherein the  
method further comprises the steps of:

when it is determined that the selected element is the source,

determining whether linking the source to the other element would violate  
a predefined rule; and

when it is determined that linking the source to the other element would  
not violate a predefined rule,

modifying the corresponding code of the source to reflect the  
removal of the link between the source and the destination;  
and

adding new code to the corresponding code of the source to reflect



the new link to the other element.

128. (cancelled)

129. (original): The computer-readable medium of claim 127, wherein the step of determining whether linking the source to the other element would violate a predefined rule, comprises the steps of:

determining whether the source is a class and whether the other element is another class; and

when it is determined that the source is the class and that the other element is the other class,

identifying the new link between the source and the other element as an inheritance link.

130. (original): The computer-readable medium of claim 127, wherein the step of determining whether linking the source to the other element would violate a predefined rule, comprises the steps of:

determining whether the source is a class and whether the other element is an interface; and

when it is determined that the source is the class and that the other element is the interface,

identifying the new link from the source to the other element as an implementation link.

131. (original): The computer-readable medium of claim 130, wherein the method further comprises the step of identifying a link error when it is determined that the other element is not the interface.

132. (original): The computer-readable medium of claim 127, wherein the step of determining whether linking the source to the other element would violate a predefined rule, comprises the steps of:

determining whether the source is an interface and the other element is another interface; and

when it is determined that the source is the interface and the other element is the other interface,

identifying the new link between the source and the other element as an inheritance link.

133. (original): The computer-readable medium of claim 132, wherein the method further comprises the step of identifying a link error when it is determined that the source is not the interface.

134. (original): The computer-readable medium of claim 132, wherein the method further comprises the step of identifying a link error when it is determined that the other element is not the other interface.

135. (cancelled)

136. (cancelled)

137. (cancelled)

138. (cancelled)

139. (cancelled)

140. (cancelled)

141. (cancelled)

142. (cancelled)

143. (cancelled)

144. (cancelled)

145. (cancelled)

146. (cancelled)

147. (cancelled)

148. (cancelled)

149. (cancelled)

150. (currently amended): A computer-readable medium containing instructions for controlling a data processing system to perform a method, the data processing system having a plurality of elements, the method comprising the steps of:  
displaying a graphical representation of the corresponding code of each of the plurality of elements including a first and a second element;

receiving an identification of a first of the plurality of elements;  
receiving an identification of a second of the plurality of elements;  
receiving an indication that the first element is to be included in the second  
element;  
determining whether the inclusion of the first element ~~is a class and whether~~ in the  
second element ~~is another class~~ would violate a predefined rule; and  
when it is determined that the inclusion of the first element ~~is the class and that~~ in  
the second element ~~is the other class~~ would not violate a predefined rule,  
transferring the code corresponding to the first element into the second  
element; and  
modifying the graphical representation of the code of the second element  
to reflect the transfer of the code corresponding to the first element  
into the second element.

151. (cancelled)

152. (cancelled)

153. (currently amended): The computer-readable medium of claim 150,

wherein the step of transferring code comprises the steps of:

removing the code corresponding to the first element from a file corresponding to  
the second element;

placing the code corresponding to the first element within the code corresponding  
to the second element; and

deleting the file corresponding to the first element.

154. (original): The computer-readable medium of claim 150, wherein the method further comprises the steps of:

when it is determined that the first element is the class and that the second element is not the other class,

determining whether the second element is a package; and

when it is determined that the second element is a package,

moving a file that includes code corresponding to the first element to a directory associated with the second element.

155. (cancelled)

156. (cancelled)

157. (currently amended): A computer-readable medium containing instructions for controlling a data processing system to perform a method, the data processing system having a plurality of elements, each element having corresponding code, wherein code corresponding to a first of the plurality of elements is nested in the code corresponding to a second of the plurality of elements, the method comprising the steps of:

displaying a graphical representation of the corresponding code of each of the plurality of elements including the first element and the second element;

receiving an indication that the first element is to be removed from the second element;

determining whether the removal of the first element is a class and whether from

the second element is another class would violate a predefined rule; and

when it is determined that the removal of the first element is the class and that

from the second element is the other class would not violate a predefined rule,  
removing the code corresponding to the first element from the second element; and  
modifying a graphical representation of the code corresponding to the second element to reflect the removal of the first element from the second element.

158. (original): The computer-readable medium of claim 157, wherein the method further comprises the step of placing the code corresponding to the first element into a file.

159. (cancelled)

160. (cancelled)

161. (currently amended): The computer-readable medium of claim 157, wherein the method further comprises the steps of:

when it is determined that the first element is ~~the~~ a class and that the second element is not ~~the~~ another class,

determining whether the second element is a package; and

when it is determined that the second element is ~~the~~ a package,

removing a first file that includes code corresponding to the first element from a directory associated with the second element ~~to~~ and  
placing the first file in another directory.

162. (cancelled)

163. (cancelled)

164. (cancelled)

165. (currently amended): A data processing system comprising:

a secondary storage device further comprising a plurality of elements, each  
element having corresponding code;

a memory device further comprising a program

that displays a graphical representation of the corresponding code of each  
of the plurality of elements including a first element and a second  
element,

that receives a request to form a link,

that receives an indication of a first of the plurality of elements,

that receives an indication of a second of the plurality of elements,

that determines whether linking the first element to the second element  
would violate a predefined rule, ~~and~~

that ~~when it is determined that linking the first element to the second  
element would not violate a predefined rule, the program~~ adds new  
code to the first element to reflect the link to the second element  
when it is determined that linking the first element to the second  
element would not violate a predefined rule; and

that modifies the graphical representation of the code associated with  
the first element to reflect the link to the second element; and

a processor for running the program.

166. (cancelled)

167. (cancelled)

168. (original): The data processing system of claim 165, wherein when the program determines whether linking the first element to the second element would violate a predefined rule, the program determines whether the first element is a class and whether the second element is another class, and when it is determined that the first element is the class and that the second element is the other class, the program identifies the link from the first element to the second element as an inheritance link.

169. (original): The data processing system of claim 165, wherein when the program determines whether linking the first element to the second element would violate a predefined rule, the program determines whether the first element is a class and whether the second element is an interface, and when it is determined that the first element is the class and that the second element is the interface, the program identifies the link from the first element to the second element as an implementation link.

170. (original): The data processing system of claim 165, wherein when the program determines whether linking the first element to second element would violate a predefined rule, the program determines whether the first element is an interface and the second element is another interface, and when it is determined that the first element is the interface and the second element is the other interface, the program identifies the link from the first element to the second element as an inheritance link.



171. (currently amended): A data processing system comprising:

a secondary storage device further comprising a plurality of elements and having

a link between two of the plurality of elements, wherein each element has

corresponding code and the linked elements include a source and a

destination;

a memory device further comprising a program

that displays a graphical representation of the corresponding code of each

of the plurality of elements including the source and the

destination,

that receives a selection of one of the linked elements,

that receives an identification of another of the plurality of elements that is

different than the linked elements, wherein a graphical

representation of the corresponding code of the other element is

displayed,

that determines whether the selected element is the destination, and

that when it is determined that the selected element is the destination, ~~the~~

~~program determines whether the other element is a class and~~

~~whether the destination is another class, and when it is determined~~

~~that the other element is the class and that the destination is the~~

~~other class, the program identifies a new link from the other~~

~~element to the destination as an inheritance link, removes a portion~~

~~of the corresponding code of the source that reflects the link~~

~~between the source and the destination,~~

adds new code to ~~the corresponding code~~ corresponding to of the other element to reflect the new link between the other element and the destination when it is determined that the selected element is the destination, removes a portion of the corresponding code of the source that reflects the link between the source and the destination, modifies the graphical representation of the corresponding code of the source to reflect the removal of the link to the destination, and modifies the graphical representation of the corresponding code of the other element to reflect the new link; and a processor for running the program.

172. (original): The data processing system of claim 171, wherein when it is determined that the other element is the class and that the destination is not the other class, the program further determines whether the destination is an interface, and when it is determined that the destination is the interface, the program identifies the new link between the other element and the destination as an implementation link.

173. (original): The data processing system of claim 171, wherein when it is determined that the other element is not the class and that the destination is not the other class, the program further determines whether the other element is an interface and whether the destination is another interface, and when it is determined that the other element is the interface and that the destination is the other interface, the program identifies the new link between the other element and the destination as an inheritance link.

174. (cancelled)

175. (cancelled)

176. (currently amended): The data processing system of claim ~~174~~ 187, wherein when it is determined that the source is the class and that the other element is not the other class, the program further determines whether the other element is in an interface, and when it is determined that the other element is the interface, the program identifies the new link between the source and the other element as an implementation link.

177. (currently amended): The data processing system of claim ~~174~~ 187, wherein when it is determined that the source is not the class and that the other element is not the other class, the program further determines whether the source is an interface and the other element is another interface, and when it is determined that the source is the interface and the other element is the other interface, the program identifies the new link between the source and the other element as an inheritance link.

178. (currently amended): A data processing system comprising:  
a secondary storage device further comprising a plurality of elements, each  
element having corresponding code; a memory device further comprising  
a program that displays a graphical representation of the code of a first of the  
plurality of elements and a graphical representation of the code of a second of the  
plurality of elements, that receives an indication that the first element is to be  
included in the second element, that determines whether the inclusion of the first  
element ~~is a class and whether in~~ the second element ~~is another class~~ would

violate a predefined rule, and that ~~when it is determined that the first element is the class and that the~~

~~second element is the other class, the program~~ transfers code corresponding to the first element into the second element when it is determined that the inclusion of the first element in the second element would not violate a predefined rule, and

that modifies a graphical representation of the code of the second element to reflect the transfer of the first element into the second element; and

a processor for running the program.

179. (currently amended): The data processing system of claim 178, wherein ~~when the program transfers code,~~ the program removes the code corresponding to the first element from a file, places the code corresponding to the first element within the code corresponding to the second element, and deletes the file corresponding to the first element.

180. (currently amended): A data processing system comprising:  
a secondary storage device further comprising a plurality of elements, wherein a first of the plurality of elements is nested within a second of the plurality of elements; a memory device further comprising a program that displays a graphical representation of the code of a first of the plurality of elements and a graphical representation of the code of a second of the plurality of elements, that receives an indication that the first element is to be removed from the second element, that determines whether the removal of the first element ~~is a class and~~

~~whether from~~ the second element would violate a predefined rule is  
another class, and

that ~~when it is determined that the first element is the class and that the~~  
~~second element is the other class, the program~~ removes the code  
corresponding to the first element from the second element when it  
is determined that the removal of the first element from the second  
element would not violate a predefined rule,

that modifies the graphical representation of the second element to reflect  
the removal of the first element from the second element, and  
that places the code corresponding to the first element into a file, ~~and~~  
~~displays a graphical representation of the code corresponding to the first~~  
element; and

a processor for running the program.

181. (cancelled)

182. (currently amended): The data processing system of claim 180, wherein  
~~when it is determined that~~ the first element is the a class and the second element is not ~~the~~  
another class, the program further determines whether the second element is a package, and  
when it is determined that the second element is ~~the~~ a package, the program removes ~~a~~ the  
first file ~~that includes code~~ corresponding to the first element from a directory associated  
with the second element.

183. (currently amended): A system having a plurality of elements, each  
element having corresponding code, the system comprising:

means for displaying a graphical representation of the corresponding code of each  
of the plurality of elements;

means for receiving a request to form a link;

means for receiving an indication of a first of the plurality of elements;

means for receiving an indication of a second of the plurality of elements; ~~and~~

means for adding new code to the first element to reflect the link to the second  
element in response to receiving the request, the indication of the first  
element, and the indication of the second element; and

means for modifying the graphical representation of the code associated with the  
first element to reflect the link to the second element.

184. (new): The method of claim 42, further comprising the step of modifying  
the code corresponding to the source to reflect the removal of the link to the destination.

185. (new): The computer-readable medium of claim 124, wherein the method  
further comprises the step of modifying the code corresponding to the source to reflect the  
removal of the link to the destination.

186. (new): The data processing system of claim 171, wherein when it is  
determined that the other element is a class and that the destination is another class, the  
program identifies the new link between the other element and the destination as an  
inheritance link.

187. (new): A data processing system comprising:  
a secondary storage device further comprising a plurality of elements and having  
a link between two of the plurality of elements, wherein each element has

corresponding code and the linked elements include a source and a destination;

a memory device further comprising a program

that displays a graphical representation of the corresponding code of each

of the plurality of elements including the source and the destination,

that receives a selection of one of the linked elements,

that receives an identification of another of the plurality of elements that is

different than the linked elements, wherein a graphical

representation of the corresponding code of the other element is

displayed,

that determines whether the selected element is the source,

that when the selected element is the source,

removes a portion of the corresponding code of the source that

reflects the link between the source and the destination,

adds new code to the code corresponding to the source to reflect

the new link between the source and the other element,

modifies the graphical representation of the corresponding code of

the source to reflect the removal of the link to the

destination, and

modifies the graphical representation of the corresponding code of

the source to reflect the new link to the other element; and

a processor for running the program.

188. (new): The data processing system of claim 187, wherein when it is determined that the source is a class and that the other element is another class, the program identifies the new link between the source and the other element as an inheritance link.

189. (new): The data processing system of claim 180, wherein the method further comprises the step of placing the code corresponding to the first element into a file.

190. (new): A system having a plurality of elements and having a link between two of the plurality of elements, wherein each element has corresponding code and the linked elements include a source and a destination, the system comprising:

means for displaying a graphical representation of the corresponding code of each

of the plurality of elements including the source and the destination;

means for receiving an identification of the link;

means for receiving a selection of one of the linked elements;

means for receiving an identification of another of the plurality of elements that is

different than the linked elements, wherein a graphical representation of

the corresponding code of the other element is displayed;

means for determining whether the selected element is the destination; and

means for:

modifying the corresponding code of the other element to reflect a new

link between the other element and the destination element; and

modifying the graphical representation of the corresponding code of the

other element to reflect the new link between the other element and

the destination element

when it is determined that the selected element is the destination.



191. (new): A system having a plurality of elements and having a link between two of the plurality of elements, wherein each element has corresponding code and the linked elements include a source and a destination, the system comprising:

means for displaying a graphical representation of the corresponding code of each of the plurality of elements including the source and the destination;

means for receiving an identification of the link;

means for receiving a selection of one of the linked elements;

means for receiving an identification of another of the plurality of elements that is different than the linked elements, wherein a graphical representation of the corresponding code of the other element is displayed;

means for determining whether the selected element is the source; and

means for:

modifying the corresponding code of the source to reflect a new link between the source and the other element, and

modifying the graphical representation of the corresponding code of the source to reflect the new link between the source and the other element,

when it is determined that the selected element is the source.

192. (new): A system having a plurality of elements, the system comprising:

means for displaying a graphical representation of the corresponding code of each of the plurality of elements including a first and a second element;

means for receiving an identification of a first of the plurality of elements;

means for receiving an identification of a second of the plurality of elements;

means for receiving an indication that the first element is to be included in the second element;

means for transferring code corresponding to the first element into the second element; and

means for modifying the graphical representation of the code of the second element to reflect the transfer of the code corresponding to the first element into the second element.

193. (new): A system having a plurality of elements, each element having corresponding code, wherein code corresponding to a first of the plurality of elements is nested in code corresponding to a second of the plurality of elements, the system comprising:

means for displaying a graphical representation of the corresponding code of each of the plurality of elements including the first element and the second element;

means for receiving an indication that the first element is to be removed from the second element;

means for removing the code corresponding to the first element from the second element; and

means for modifying a graphical representation of the code corresponding to the second element to reflect the removal of the first element from the second element.

194. (new): The data processing system in claim 165, further comprising a language-neutral representation of the source code, wherein the language neutral representation of the source code is used to generate a graphical representation of the source code and a textual representation of the source code.

195. (new): The data processing system in claim 194, wherein modifications to the textual representation of the source code will immediately modify the corresponding graphical representation of the source code and vice versa, thereby allowing simultaneous viewing of the textual and graphical representations of the source code.

196. (new): The data processing system in claim 194, wherein the language neutral representation of the source code is generated from a multiplicity of programming languages.

197. (new): The data processing system in claim 165, wherein the source code is used directly to generate a graphical representation of the source code and a textual representation of the source code.

198. (new): The data processing system in claim 171, further comprising a language-neutral representation of the source code, wherein the language neutral representation of the source code is used to generate a graphical representation of the source code and a textual representation of the source code.

199. (new): The data processing system in claim 197, wherein modifications to the textual representation of the source code will immediately modify the corresponding graphical representation of the source code and vice versa, thereby allowing simultaneous viewing of the textual and graphical representations of the source code.

200. (new): The data processing system in claim 197, wherein the language neutral representation of the source code is generated from a multiplicity of programming languages.

201. (new): The data processing system in claim 171, wherein the source code is used directly to generate a graphical representation of the source code and a textual representation of the source code.

202. (new): The data processing system in claim 187, further comprising a language-neutral representation of the source code, wherein the language neutral representation of the source code is used to generate a graphical representation of the source code and a textual representation of the source code.

203. (new): The data processing system in claim 202, wherein modifications to the textual representation of the source code will immediately modify the corresponding graphical representation of the source code and vice versa, thereby allowing simultaneous viewing of the textual and graphical representations of the source code.

204. (new): The data processing system in claim 202, wherein the language neutral representation of the source code is generated from a multiplicity of programming languages.

205. (new): The data processing system in claim 187, wherein the source code is used directly to generate a graphical representation of the source code and a textual representation of the source code.

206. (new): The data processing system in claim 178, further comprising a language-neutral representation of the source code, wherein the language neutral

representation of the source code is used to generate a graphical representation of the source code and a textual representation of the source code.

207. (new): The data processing system in claim 206, wherein modifications to the textual representation of the source code will immediately modify the corresponding graphical representation of the source code and vice versa, thereby allowing simultaneous viewing of the textual and graphical representations of the source code.

208. (new): The data processing system in claim 206, wherein the language neutral representation of the source code is generated from a multiplicity of programming languages.

209. (new): The data processing system in claim 178, wherein the source code is used directly to generate a graphical representation of the source code and a textual representation of the source code.

210. (new): The data processing system in claim 180, further comprising a language-neutral representation of the source code, wherein the language neutral representation of the source code is used to generate a graphical representation of the source code and a textual representation of the source code.

211. (new): The data processing system in claim 210, wherein modifications to the textual representation of the source code will immediately modify the corresponding graphical representation of the source code and vice versa, thereby allowing simultaneous viewing of the textual and graphical representations of the source code.

212. (new): The data processing system in claim 210, wherein the language neutral representation of the source code is generated from a multiplicity of programming languages.

213. (new): The data processing system in claim 180, wherein the source code is used directly to generate a graphical representation of the source code and a textual representation of the source code.